

What is claimed is:

1. A method of stimulating a section of a subterranean formation comprising the steps of:
 - (a) forming at least a portion of a well bore that at least penetrates a section of the subterranean formation using a drilling operation;
 - (b) stimulating a section of the subterranean formation; and
 - (c) continuing the drilling operation.
2. The method of claim 1 wherein step (c) includes removing a drill string from the well bore.
3. The method of claim 1 wherein the drilling operation includes rotary drilling, cable-tool drilling, hydrojet drilling, or laser drilling.
4. The method of claim 1 wherein step (b) includes an acoustic stimulation, a fracturing operation, an acid squeeze operation, a fracture acidizing operation, a chemical squeeze operation, a chemical wash operation, or an acid wash operation.
5. The method of claim 1 wherein step (b) includes use of a stimulation tool.
6. The method of claim 5 wherein the stimulation tool comprises at least one port.
7. The method of claim 6 wherein step (b) comprises the steps of:
 - positioning the stimulation tool in the well bore adjacent to the section of the subterranean formation to be stimulated; and
 - flowing a stimulation fluid through the at least one port so as to stimulate the section in the subterranean formation.
8. The method of claim 7 further comprising the step of pumping a second fluid into an annulus, wherein the annulus is formed between a wall of the well bore and a drill string that is disposed in the well bore.
9. The method of claim 7 further comprising the step of shutting an annulus, wherein the annulus is formed between a wall of the well bore and a drill string that is disposed in the well bore.
10. The method of claim 7 further comprising the step of introducing a cleaning fluid into the well bore.
11. The method of claim 7 wherein step (a) includes the use of a drilling fluid.

12. The method of claim 11 wherein the stimulation fluid has substantially the same chemistry as the drilling fluid.
13. The method of claim 7 wherein the stimulation fluid is an unweighted drilling fluid.
14. The method of claim 7 wherein the stimulation fluid comprises an abrasive, a proppant, an acid, a chemical, or a mixture thereof.
15. The method of claim 14 wherein the chemical is a relative permeability modifier.
16. The method of claim 7 wherein the stimulation fluid is an aqueous-based fluid, a gas, or a foamed fluid.
17. The method of claim 7 wherein a fluid jet forming nozzle is connected within the at least one port.
18. The method of claim 17 wherein the stimulation fluid is jetted through the fluid jet forming nozzle against the section of the subterranean formation at a pressure sufficient to form a cavity in the section of the subterranean formation.
19. The method of claim 18 further comprising the step of pumping a second fluid into an annulus to enhance the stimulation of the cavity, wherein the annulus is formed between a wall of the well bore and a drill string that is disposed in the well bore.
20. The method of claim 19 wherein the second fluid is pumped into that annulus at a rate sufficient to raise the ambient pressure in the well bore adjacent to the section of the subterranean formation to a level sufficient to enhance the stimulation of the cavity in the section.
21. The method of claim 18 further comprising the step of shutting an annulus, wherein the annulus is formed between a wall of the well bore and a drill string that is disposed in the well bore.
22. The method of claim 7 further comprising the step of opening the at least one port prior to the step of flowing the stimulation fluid through the at least one port.
23. The method of claim 22 wherein the step of opening the at least one port includes a sliding sleeve.
24. The method of claim 22 wherein the step of opening the at least one port includes a mechanical-activation mechanism or a flow-activation mechanism.
25. The method of claim 7 further comprising the steps of:

positioning the stimulation tool in the well bore adjacent to a second section of the subterranean formation to be stimulated; and

flowing a stimulation fluid through the at least one port to stimulate the second section of the subterranean formation.

26. The method of claim 1 further comprising the step of sealing the zone in the subterranean formation that was stimulated.

27. The method of claim 26 wherein the step of sealing the zone in the subterranean formation that was stimulated includes the use of a degradable sealant, a fluid, a solid, or a combination thereof.

28. The method of claim 27 wherein the fluid comprises a cement composition or a gel.

29. The method of claim 27 wherein the solid comprises colemanite, a benzoic acid flake, rock salt, a paraffin bead, or calcium carbonate.

30. The method of claim 27 wherein the degradable sealant comprises a polysaccharide, a chitin, a chitosan, a protein, an aliphatic polyester, a poly(lactide); a poly(glycolide); a poly(ϵ -caprolactone); a poly(hydroxybutyrate); a poly(anhydride); an aliphatic polycarbonate; an ortho ester; a poly(orthoester); a poly(amino acid); a poly(ethylene oxide); or a poly(phosphazene).

31. A method of stimulating a section of a subterranean formation comprising the steps of:

- (a) providing a drill string that comprises a stimulation tool interconnected as a part of the drill string and a drill bit attached at an end of the drill string;
- (b) drilling at least a portion of the well bore using the drill string, wherein the well bore at least penetrates a section of the subterranean formation; and
- (c) stimulating a section of the subterranean formation using the stimulation tool.

32. The method of claim 31 further comprising the step of removing the drill string from well bore after step (c).

33. The method of claim 31 further comprising the step of resuming drilling the well bore after step (c).

34. The method of claim 31 further comprising the step of stimulating multiple sections of the subterranean formation as the drill string is removed from the well bore.

35. The method of claim 31 wherein stimulating the section of the subterranean formation includes an acoustic stimulation, a fracturing operation, an acid squeeze operation, a fracture acidizing operation, a chemical squeeze operation, a chemical wash operation, or an acid wash operation.

36. The method of claim 31 wherein the stimulation tool comprises at least one port.

37. The method of claim 36 wherein stimulating the section of the subterranean formation comprises the steps of:

positioning the stimulation tool in the well bore adjacent to the section of the subterranean formation to be stimulated; and

flowing a stimulation fluid through the at least one port so as to stimulate the section of the subterranean formation.

38. The method of claim 37 further comprising the step of pumping a second fluid into an annulus, wherein the annulus is formed between a wall of the well bore and the drill string.

39. The method of claim 37 further comprising the step of shutting an annulus, wherein the annulus is formed between a wall of the well bore and a drill string that is disposed in the well bore.

40. The method of claim 37 further comprising the step of introducing a cleaning fluid into the well bore.
41. The method of claim 37 wherein step (b) includes the use of a drilling fluid
42. The method of claim 41 wherein the stimulation fluid has substantially the same chemistry as the drilling fluid.
43. The method of claim 37 wherein the stimulation fluid is an unweighted drilling fluid.
44. The method of claim 37 wherein the stimulation fluid comprises an abrasive, a particulate, an acid, a chemical, or a mixture thereof.
45. The method of claim 37 wherein the stimulation fluid is an aqueous-based fluid, a gas, or a foamed fluid.
46. The method of claim 37 wherein a fluid jet forming nozzle is connected within the at least one port.
47. The method of claim 46 wherein the stimulation fluid is jetted through the fluid jet forming nozzle against the section of the subterranean formation at a pressure sufficient to form a cavity in the section of the subterranean formation.
48. The method of claim 47 further comprising the step of pumping a second fluid into an annulus to enhance the stimulation of the cavity, wherein the annulus is formed between a wall of the well bore and the drill string.
49. The method of claim 48 wherein the second fluid is pumped into the annulus at a rate sufficient to raise the ambient pressure in the well bore adjacent to the section in the subterranean formation to a level sufficient enhance the stimulation of the cavity.
50. The method of claim 47 further comprising the step of shutting an annulus, wherein the annulus is formed between a wall of the well bore and a drill string that is disposed in the well bore.
51. The method of claim 37 further comprising the step of opening the at least one port prior to flowing the stimulation fluid through the at least one port.
52. The method of claim 51 wherein the step of opening the at least one port includes a sliding sleeve.
53. The method of claim 51 wherein the step of opening the at least one port includes a mechanical-activation mechanism or a flow-activation mechanism.

54. The method of claim 37 further comprising the steps of:
positioning the stimulation tool in the well bore adjacent to a second section of the subterranean formation to be stimulated; and
flowing the stimulation fluid through the at least one port to stimulate the second section of the subterranean formation.
55. The method of claim 31 further comprising the step of sealing the section of the subterranean formation that was stimulated.
56. The method of claim 55 wherein the step of sealing the section of the subterranean formation that was stimulated includes the use of a degradable sealant, a fluid, a solid, or a combination thereof.

57. A method of stimulating at least one section of a subterranean formation during a drilling operation comprising the steps of:

- (a) providing a drill string that comprises a stimulation tool interconnected as a part of the drill string and a drill bit attached at an end of the drill string;
- (b) drilling at least a portion of the well bore using the drill string, wherein the well bore at least penetrates a section of the subterranean formation;
- (c) stimulating a section of the subterranean formation using the stimulation tool; and
- (d) removing the drill string from the well bore.